

Amendments to the Abstract:

Please insert the following Abstract as a separate page after the claims.

ABSTRACT

A phase change memory having a memory material layer consisting of a phase change material, and a first and second electrical contact which are located at a distance from one another and via which a switching zone of the memory material layer can be traversed by a current signal, wherein the current signal can be used to induce a reversible phase change between a crystalline phase and an amorphous phase and thus a change in resistance of the phase change material in the switching zone. The invention also relates to a phase change memory assembly, a phase change memory cell, a 2D phase change memory cell array, a 3D phase change memory cell array and an electronic component.